

## REMARKS

This reply is intended as a full and complete response to the Final Office Action dated July 24, 2008.

Entry of the foregoing amendment and reconsideration of the claims is respectfully requested.

### Claim Rejections -- 35 USC 103

The Office Action rejected Claims 1, 5, 6, 21-25, 26, and 27-33 under 35 U.S.C. § 103(a) as being unpatentable over *Parker* (U.S. Patent No. 4,692,311). Alternatively, claims 1, 5, 6, 21-24, 26 and 27 stand rejected under 35 U.S.C. § 103(a) over *Parker* in view of *Simpson* (U.S. Patent No. 7,108,138) and as further evidenced by *Dewitz* (U.S. Patent No. 5,869,008) or *Ko* (N.W.M. *Ko* & A.S.K. *Chan*, *In the Intermixing Region Behind Circular Cylinders With Stepwise Change of the Diameter*, 9 EXPERIMENTS IN FLUIDS 213-221 (1990)) or *Mori* (U.S. Patent No. 6,041,754) or *Wasif* (U.S. Publication 2005/0016178) or *Hwang* (U.S. Publication 2005/0183664).

Applicant respectfully traverses the rejections for reasons set forth below and for reasons already of record, which are incorporated by reference herein.

In regard to Claim 26, Applicant notes that this claim was previously canceled in Applicant's response to the Office Action dated December 28, 2007. In regard to Claims 1, 5, 6, 21-25, and 27-33, Applicant respectfully traverses the rejections on grounds that no person having ordinary skill in the art would ever consider the sintered stainless steel ring 34 taught in *Parker* to be the equivalent of a plurality of apertures, as required in base Claim 1 and those dependent therefrom. Likewise, no person having ordinary skill in the art would ever consider the sintered stainless steel ring 34 taught in *Parker* to be the equivalent of a plurality of unobstructed openings as required in base Claims 21, 23, 25, and 29 and those dependent therefrom.

It is well known and widely recognized that sintered metal rings are solid structures that do not have unobstructed openings. The Examiner's choice of the term "diffusion" as opposed to "flow" could not describe this distinction any better. For at least these reasons, withdrawal of the rejections and allowance of the claims is respectfully requested.

Notwithstanding the foregoing, Applicant respectfully traverses the rejection to Claims 1, 5, 6, 21-25, and 27-33 on grounds that a combination of *Parker* and *Simpson* specifically teaches away from the claimed subject matter. *Simpson* states, "It has been found that in order to enhance and aid the interior vortex 702 development, one needs to introduce diffuser air 304 at a cylinder diameter 343 which is larger than the cyclone outlet diameter." *See Simpson* at col. 6, lines 16-19. Introducing diffuser air at a cylinder diameter larger than the cyclone outlet diameter directly teaches away from a stripping section having a cross sectional area less than a cross sectional area of a cyclone section. Thus, modifying *Parker* as taught by *Simpson* would provide a cyclone section having a **smaller cross section** than the stripping section, which is directly opposite of the claimed subject matter. For at least this reason, withdrawal of the rejection and allowance of the claims is respectfully requested.

The Office Action rejected Claim 4 stands 35 U.S.C. § 103(a) as being unpatentable over *Parker* in view of *Fandel* (U.S. Patent No. 5,843,377). Alternatively, Claim 4 is rejected under 35 U.S.C. § 103(a) as being unpatentable over *Parker* in view of *Simpson* and *Fandel*.

Applicant respectfully traverses the rejections for reasons stated above. Furthermore, since Claim 4 includes all the limitations of base Claim 1, Claim 4 is allowable for at least the same reasons. Withdrawal of the rejection and allowance of the claim is respectfully requested.

## Conclusion

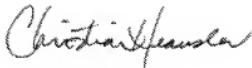
Having addressed all issues set out in the Final Office action, Applicant respectfully submits that the pending claims are now in condition for allowance. Applicant invites the Examiner to telephone the undersigned attorney if there are any issues outstanding which have not been addressed to the Examiner's satisfaction.

Since this Response is being filed within two months of the mailing date of the Final Office Action, Applicant respectfully requests that the Examiner send the Applicant an Advisory Action regarding this response.

**If any fees are due with the noted amendments, the Director is hereby authorized to charge any fees associated with this filing to Deposit Account Number 11-0400 in the name of Kellogg Brown & Root LLC.**

Applicant thanks the Examiner for his time and patience on this matter.

Respectfully submitted,



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September 22, 2008

Date

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